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(54) **ORGANO-SILANE MODIFIED POLYMERS AND METHODS FOR THEIR PREPARATION AND USE**

(57) Polyvinyl alcohol (PVOH) and polyphenyl sulfone (PPSU) organo-silanes that are stable in high temperature, high UV and/or high humidity environments are described. The PVOH and PPSU organo-silanes are useful for a variety of uses, such as anti-corrosion coat-

ings, barrier coatings, high temperature paints, pharmaceutical coatings, pipe coatings, and tank liners. Additionally, methods for the preparation of the PVOH and PPSU organo-silanes are described herein.

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EUROPEAN SEARCH REPORT

 Application Number
 EP 15 20 2952

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	WO 2014/046787 A2 (GRACE W R & CO [US]; SUN QI [JP]; KONISHI TAKU [JP]) 27 March 2014 (2014-03-27) * claims 1-2,4-14,18-20,26,31,32,35-40, * * paragraphs [0007], [0029] - [0034]; table 1 * * paragraphs [0057] - [0058]; examples 1,2; tables 2,4 * -----	1-8	INV. C08F8/42 C08F16/06 C08G75/029 C08K5/54 C08L29/04 C09D129/04 C08L81/06 C09D181/06 ADD. C08K5/5419 C08J7/04 B05D1/02 B05D1/18 B05D1/28 C09D5/18
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			C08F C08K C08L C09D C09J C07F C08J B05D
Place of search		Date of completion of the search	Examiner
Munich		4 May 2016	Hollender, C
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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Application Number

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1-8

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



LACK OF UNITY OF INVENTION
SHEET B

Application Number

EP 15 20 2952

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-8

An organo-silane modified polymer comprising a reaction product of at least one silane and at least one polyvinyl alcohol as defined in claims 1-5. A method of preparing an organo-silane modified polymer, the method comprising contacting at least one silane and at least one polyvinyl alcohol as mentioned in claim 6 and further defined in claims 7-8.

2. claims: 9-15

An organo-silane modified polymer comprising a reaction product of at least one silane and at least one polyphenylsulfone as defined in claims 9-11. A method of preparing an organo-silane modified polymer, the method comprising contacting at least one silane and at least one polyphenylsulfone as mentioned in claim 12 and further defined in claims 13-15.

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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04-05-2016

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2014046787 A2	27-03-2014	JP 2016505642 A	25-02-2016
		WO 2014046787 A2	27-03-2014

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82